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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/981,898 | 10/19/2001 | Tominari Nomura | Q66830 | 7310 |

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SUGHRUE, MION, ZINN, MACPEAK & SEAS
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EXAMINER

NGUYEN, SIMON

ART UNIT PAPER NUMBER

2685

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 09/981,898 | Applicant(s) NOMURA ET AL. | |
| | Examiner SIMON D NGUYEN | Art Unit 2685 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-16 is/are allowed.
- 6) ☒ Claim(s) 1-9, 17, 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 19 and 21-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date (2 pages).
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 16 page 48 line 10 the term "which includes the second to fifth steps of claim 15" Does claim 16 depend on claim 15 ?. If not, adding the second to fifth steps of claim 15 in claim 16.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 8-9, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dulman (6,018,567) in view of Hirsch (6,389,282).

Regarding claim 1, Dulman discloses the maintenance operation performs fault diagnosis and recovery operations via Internet (figs.1-4, column 3 lines 48-64, column 8 line 50 to column 9 line 65, column 11 line 36 to column 12 line 18). However, Dulman does not specifically disclose the maintenance system is centralized.

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Hirsch discloses a centralized maintenance management system for a mobile telephone system (fig.1, abstract), comprising: accessing information providing service (OMC) from a maintenance terminal (LMTr); and searching database (TB) for fault data and diagnosis dictionary (column 8 line 47 to column 12 line 28). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Dulman, modified by Hirsch in order to shorten the diagnosis/recovery time.

Regarding claim 2, in the modified Dulman, Dulman further discloses development and maintenance for operation of the system (column 2 line 4-8), which means the maintenance, and operation performed by a group of developing and maintaining engineers.

Regarding claim 3, Hirsch discloses contents of the diagnosis information stored in the database table (abstract).

Regarding claim 8, Dulman disclose a maintenance management method for a portable telephone system which makes use of the Internet (30) (figs.1-4, comprising the steps of: transmitting an inquiry for similar data to a fault of said portable telephone system from a remote maintenance console (MOC 23 of fig.2), which is provided to perform a fault diagnosis operation of said portable telephone system, to a database server through an information providing server (36) of a portable telephone system maintenance management to which said remote maintenance console is connected over the Internet; and searching a diagnosis dictionary in said database server having received the inquiry, extracting, when fault data similar to the fault is searched out, the similar fault data and transmitting the similar fault data as a fault inquiry result to said

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remote maintenance console through said information providing server (column 8 line 50 to column 12 line 17). However, Dulman does not specifically disclose a centralized maintenance system.

Hirsch discloses a centralized maintenance center (OMC) having a plurality of remote local maintenance terminal (LMTr) wherein the maintenance center including a database (TB) for containing for each operation and maintenance information (abstract, fig.1, column 8 line 48 to column 11 line 17). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Dulman, modified by Hirsch centralize the maintenance service in order to quickly detect when a problem happening.

Regarding claim 9, Dulman further discloses transmitting, when a fault diagnosis operation is performed by said remote maintenance console and the fault is recovered, fault recovery data to said database server through said information providing server connected over the Internet; and receiving, by said database server, the fault recovery data and updating the fault data and the diagnosis dictionary stored in said database server (column 9 lines 49-62, column 11 lines 43-45).

Regarding claim 17, this claim is rejected for the same reason as set forth in claim 8, wherein Hirsch discloses telephones connect to each other by a fixed network (fig.1).

Regarding claim 18, this claim is rejected for the same reason as set forth in claim 9.

4. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dulman (6,018,567) in view of Hirsch (6,389,282) and further in view of Sasabe et al. (US 2003/0046329 A1).

Regarding claims 4-7, the modified Dulman does not specifically disclose the step of issuing request, acceptance, completion, and progress in repairing, supervising data, maintenance schedule

Sasabe discloses a system for maintaining service, comprising the steps of requesting for maintaining service, information on state of malfunction and recovery process (paragraphs 73, 89, 117), wherein the steps are performed on-line (paragraph 76) supervising data (page 4 paragraphs 76-84), scheduling maintenance (paragraph 89). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have modified Dulman, modified by Sasabe to process legal steps in order to improve the service performance.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dulman (6,018,567) in view of Hirsch (6,389,282) and further in view of Bouix et al. (5,297,193).

Regarding claim 20, the modified Hirsch does not specifically disclose transmitting a fault recovery data.

Bouix, in the same field of invention, disclose a maintenance ticket transmitted to a database (column 6 lines 19-23). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have modified Hirsch, modified by Bouix

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to be enable regional operating personnel to consult data in the case of maintenance parts or system.

Allowable Subject Matter

6. Claims 10-11, 19, 21-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 10, 19, Dulman further discloses the steps of: issuing a request for supporting of a maintenance operation to a maintenance supporting console of an operational support system (38) (column 9 lines 59-63). However, Dulman does not specifically disclose the step of issuing a request for supporting of a maintenance operation only when data of a similar fault is not searched out from a diagnosis table.

Regarding claim 21, the prior art of record fails to teach the step of registering a repair return date into the repair request data of the database server.

Regarding claims 11, 22-26, these claims are objected as being dependent upon dependent claims that have been objected.

7. Claims 12-14, 15, and 16 are allowed.

Regarding claim 12, the prior art of record fails to teach the step of registering a repair return date into the repair request data of the database server.

Regarding claims 15, the prior art of record fails to teach the step of performing fault occurrence prediction and determining a failure ratio, calculating required

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quantities of spare apparatus and panels and storing the required quantities as predictive maintenance schedule data.

Regarding claim 16, the prior art of record does not specifically disclose the step of delivering apparatus and panels corresponding to a shortage into a distribution center and performing inventory management in the distribution center.

Regarding claim 13-14, these claims are allowed as being dependent upon independent claim that has been allowed.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (703) 308-1116. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

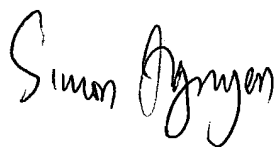
(703) 872-9314, (for formal communications intended for entry)

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Hand-delivered response should be brought to Crystal Park II,
2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Simon Nguyen

November 10, 2004

A handwritten signature in black ink that reads "Simon Nguyen". The signature is written in a cursive, flowing style.

SIMON NGUYEN
PATENT EXAMINER